



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,814	01/10/2002	Stanley K. Cheng	LWC/187	7857
26875	7590	04/30/2004	EXAMINER	
WOOD, HERRON & EVANS, LLP 2700 CAREW TOWER 441 VINE STREET CINCINNATI, OH 45202			ALEXANDER, REGINALD	
			ART UNIT	PAPER NUMBER
			1761	

DATE MAILED: 04/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

**Office Action Summary****Application No.**

10/043,814

**Applicant(s)**

CHENG, STANLEY K.

**Examiner**

Reginald L. Alexander

**Art Unit**

1761

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng in view of Welhouse.

There is disclosed in Cheng a cooking pan comprising: a base 2 having an upper cooking surface, the surface being provided with a pattern of concentric corrugations 8 having ridges and grooves therebetween; and a non-stick coating 10 applied to the cooking surface. In regards to the claimed ridge to ridge spacing range, it is recited in Cheng that the range can be 2mm or wider. Such a position is taken from the recitation in claim 1 that the spacing can be "no more than about 2 mm". The phrase "about" allows for sizes above and below the designated size, which in this case is 2 mm. 2.3 mm is "about" 2 mm.

Welhouse discloses a distance between a ridge top 15 and a groove bottom 17 in the range of 0.005" to 0.012". It would have been obvious to one skilled in the art to modify the ridge top to groove bottom distance of Cheng as taught by Welhouse, in order to improve the heat transfer and drainage performance of the cooking pan.

In regards to the various distance ranges recited in the claims, it would have been obvious to one skilled in the art to construct the cooking pan within those ranges,

Art Unit: 1761

since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

### ***Response to Arguments***

Applicant's arguments filed March 23, 2004 have been fully considered but they are not persuasive. It should first be noted that when viewing the cooking surfaces of Wellhouse and Cheng it was the Examiners opinion that both disclosed a textured surface. While Wellhouse may not disclose a pattern of concentric corrugations, there is disclosed a surface pattern having ridges and grooves just as Cheng discloses and is required by the claims. Wellhouse teaches that a non-stick material can be applied to a cooking surface having a surface pattern which has ridges and grooves within the claimed height (col. 4, lines 62-68; col. 5, lines 1 and 2).

Applicant argues that the Cheng reference discloses corrugations which are closer together and much deeper than those as claimed. In response to the corrugations having a closer spacing, such an argument has been addressed in the rejection of the claims above. In regards to the depth of the corrugations the Wellhouse reference has been cited to disclose a depth which is in the claimed range.

It is known in the art to use various surface textures and texture depths and pitch ranges to allow for proper drainage and heat transfer in a cooking vessel surface. While no single reference has provided the claimed depth and pitch ranges, the teaching of those ranges is found in various prior art references. The motivation is also provided in

Art Unit: 1761

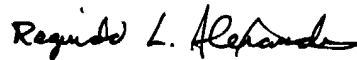
those references to modify the ranges in order to provide more efficient heat transfer and drainage capabilities for the cooking vessel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reginald L. Alexander whose telephone number is 571-272-1395. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

rla  
April 27, 2004

  
Reginald L. Alexander  
Primary Examiner  
Art Unit 1761